

REMARKS

Claims 1-16 are pending.

102(b) Rejection

Claims 1-16 are rejected under 35 U.S.C. § 102(b) as being anticipated by Tzeng (US 5,293,449). The Applicants have reviewed the cited reference and respectfully submit that the present invention as recited in Claims 1-16 is not anticipated or shown by Tzeng.

Applicants respectfully assert that Tzeng does not show or suggest a vocoder as recited in independent Claims 1, 5, 9 and 13. In particular, Tzeng does not show or suggest reducing sinusoidal artifact generation in a vocoder as recited in these claims. A vocoder, as in the present invention, pertains to the encoding and decoding of speech; that is, the compressing and decompressing of speech. Tzeng does not describe a system for encoding and decoding speech. Tzeng describes a speech coder for the production of synthetic speech. Applicants respectfully assert that a speech coder (a voice synthesizer) is very different from a vocoder.

Applicants also respectfully submit that Tzeng does not show or suggest an input energy threshold value as recited in independent Claims 1, 5, 9 and 13. Applicants understand Tzeng to only describe a method in which each possible codeword is used as input to a voice synthesizer. The synthesized speech is compared to the original speech for each possible codeword, and the codeword which minimizes the error between the synthesized speech and the original speech is selected as the best excitation.

Tzeng makes no mention of a threshold value, nor does Tzeng show or suggest making use of a selection process based on a comparison to a threshold value, as in the present claimed invention. Tzeng only describes selecting a codeword that results in a minimum error, without any consideration of a threshold value.

In addition, Tzeng only describes selecting between a voiced or unvoiced codebook. A voiced codebook pertains to sounds of speech generated using the vocal cords, while an unvoiced codebook pertains to sounds of speech not generated using the vocal cords. The Applicants respectfully assert that selecting between a voiced or unvoiced codebook does not show or suggest "using a selection process to prevent a suspected noise-inducing codebook excitation vector from being continuously generated," as recited in independent Claims 1, 5, 9 and 13.

Therefore, Applicants respectfully submit that independent Claims 1, 5, 9 and 13 are not anticipated by Tzeng, and therefore the rejection of these Claims under 35 U.S.C. § 102(b) is traversed. Applicants also respectfully submit that Claims 2-4 dependent on Claim 1, Claims 6-8 dependent on Claim 5, Claims 10-12 dependent on Claim 9, and Claims 14-16 dependent on Claim 13 traverse the Examiner's basis for rejection under 35 U.S.C. § 102(b) as these claims are dependent on allowable base claims.

CONCLUSION

In light of the above remarks, Applicants respectfully request reconsideration of the rejected Claims.

Based on the arguments presented above, Applicants respectfully assert that Claims 1-16 overcome the rejections of record and, therefore, Applicants respectfully solicit allowance of these Claims.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

The title page, page 1 and page 26 have been amended as follows:

Please delete the title [IMPROVED VOCODER METHOD] and replace it with the title -- REDUCING ARTIFACT GENERATION IN A VOCODER --.

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